

(a) producing agonist antibodies which specifically bind to the extracellular domain of a receptor having a WSX motif comprising the extracellular domain sequence within SEQ ID NO: 2.

(b) testing the antibodies produced in step (a) for the ability to decrease body weight or fat-depot weight or food intake in an obese animal, and

(c) identifying an antibody that has at least one of the abilities tested in step (b).

2. (Amended) The method [antibody] of claim 1 [which specifically binds to human WSX receptor] wherein said obese animal is an ob/ob mouse.

3. (Twice amended) The [antibody] method of claim [2] 1 [which] wherein said antibodies produced in step (a) specifically [binds] bind to [and activates] human [WSX] receptor variant 13.2 (SEQ ID NO: 2).

4. (Amended) The [antibody] method of claim 1 [which binds] wherein said antibodies produced in step (a) bind to the extracellular domain of said receptor having a WSX motif [WSX receptor] with a Kd of no more than about 1×10^{-8} M.

5. (Amended) The [antibody] method of claim 4 [which binds WSX receptor with a] wherein said Kd [of] is no more than about 1×10^{-9} M.

6. (Amended) The [antibody] method of claim [2] 3 [which also binds] wherein said antibodies also bind to a murine [WSX] receptor having a WSX motif.

7. (Amended) The [antibody] method of claim 1 [which has] wherein said antibodies produced in step (a) have an IC50 in a KIRA ELISA of about 0.5 μ g/ml or less.

8. (Amended) The [antibody] method of claim 7 [which has] wherein said antibodies have an IC50 in a KIRA ELISA of about 0.2 μ g/ml or less.

9. (Amended) The [antibody] method of claim 8 [which has] wherein said antibodies have an IC50 in a KIRA ELISA of about 0.2 μ g/ml or less.

10. (Twice amended) The [antibody] method of claim 1 [which] wherein said antibodies produced in step (a) [has] have biological characteristics of an antibody selected from the group consisting of antibodies 2D7 (ATCC Accession Number HB-12249), 1G4 (ATCC Accession Number HB-12243), 1E11 (ATCC Accession Number HB-12248) and 1C11 (ATCC Accession Number HB-12250).

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11. (Amended) The [antibody] method of claim 10 [which] wherein said antibodies bind [binds] to the epitope [on WSX receptor] bound by an antibody selected from the group consisting of 2D7 (ATCC Accession Number HB-12249), 1G4 (ATCC Accession Number HB-12243), 1E11 (ATCC Accession Number HB-12248) and 1C11 (ATCC Accession Number HB-12250).

12. (Amended) The [antibody] method of claim 10 [which] wherein said antibodies [has] have complementarity determining region (CDR) residues from an antibody selected from the group consisting of 2D7 (ATCC Accession Number HB-12249), 1G4 (ATCC Accession Number HB-12243), 1E11 (ATCC Accession Number HB-12248) and 1C11 (ATCC Accession Number HB-12250).

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22. (Amended) The [antibody] method of claim 1 wherein at least one of said antibodies produced in step (a) [comprising] comprises hypervariable region residues of clone 3 antibody (SEQ ID NO: 48).

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23. (Amended) The [antibody] method of claim 1 wherein at least one of said antibodies produced in step (a) [comprising] comprises hypervariable region residues of clone 4 antibody (SEQ ID NO: 49).

24. (Amended) The [antibody] method of claim 1 wherein at least one of said antibodies produced in step (a) [comprising] comprises hypervariable region residues of clone 17 antibody (SEQ ID NO: 50).

25. (Amended) The [antibody] method of claim 1 [which is a] wherein said antibodies produced in step (a) are monoclonal [antibody] antibodies.

26. (Amended) The [antibody] method of claim 1 [which] wherein at least one of said antibodies produced in step (a) is a human antibody.

27. (Amended) The [antibody] method of claim 1 [which] wherein at least one of said antibodies produced in step (a) is a humanized antibody.

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28. (Amended) The [antibody] method of claim 1 [which] wherein at least one of said antibodies produced in step (a) is an antibody fragment.

29. (Amended) The [antibody fragment] method of claim 28 [which] wherein said antibody fragment is an F(ab')₂.

30. (Amended) [A composition] The method of claim 1 further comprising the step of converting the antibody [of claim 1] identified in step (c) into a composition by admixing it with [and] a physiologically acceptable carrier.

31. (Amended) The [composition] method of claim 30 [which] wherein said composition is sterile.

32. (Amended) The [composition] method of claim 31 [which] wherein said composition is lyophilized.